

REMARKS

Claims 1, 2, and 3 are examined. No claims have been added, cancelled, or amended. Accordingly, claims 1, 2, and 3 are pending.

A. Claims Rejected Under Double Patenting

The Examiner has rejected claims 1-3 under the doctrine of obviousness-type double patenting over claims 1, 9, 12, 16, and 17 of U.S. Patent 6,411,628 Hauck et al. Applicants file a terminal disclaimer in compliance with CFR 1.321(c) to overcome the nonstatutory rejection on double patenting grounds. Applicants respectfully request the Examiner withdraw the rejection of claims 1-3 on grounds of double patenting.

B. Claims Rejected Under 35 U.S.C. §102(b)

The Examiner has rejected claim 1 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,675,671 Ishizuka et al. (Ishizuka) and U.S. Patent No. 5,784,648 Duckwall (Duckwall). Applicants respectfully traverse these rejections.

Independent claim 1 is not anticipated by Ishizuka because Ishizuka does not disclose a method comprising establishing a node as a nominal root node, the nominal root node being a node with a right to transmit a packet on a bus, and dynamically changing the nominal root node responsive to a change in right to transmit on the bus. Ishizuka merely teaches a standard token ring topology. A token frame is transmitted from a master node to a slave node, which grants the slave node the right to transmit data to the master node. See Col. 2, lines 65-68; Col. 3, lines 1-10. However, the slave node after receiving the data transmission right ostensibly becomes a master node, with the limitation that a slave node cannot transfer the data transmission right to other slave nodes. See Col. 3, lines 10-13. Furthermore, the master node does not lose its data transmission right. See Col. 3, lines 9-10. By contrast, in Applicants' method, the right of data transmission is granted to the nominal root node, and child nodes may not

receive this data transmission right. Once the nominal node is dynamically changed, the predecessor node does not retain the right to transmit data on the bus. Even with the purported guidance of the Examiner referring to Figure 1, Reference A, Figure 1, Reference B in column 3 lines 54-65, Applicants are unable to discern any meaningful teaching in Ishizuka relevant to the Applicants' claims. Ishizuka's master nodes are clearly not analogous to Applicant's claimed nominal root nodes and the notion of a root node in the context of a token ring topology is a non sequitur. In short, the purported teachings of Ishizuka are simply irrelevant to what Applicant claims. For at least the reasons stated with respect to claim 1, Applicants request that the rejection to this claim be withdrawn.

Independent claim 1 is not anticipated by Duckwall because Duckwall does not disclose a method comprising establishing a node as a nominal root node, the nominal root node being a node with a right to transmit a packet on a bus, and dynamically changing the nominal root node responsive to a change in right to transmit on the bus. In Duckwall, a child node transmits a bus request up through the node's parent up to the root node while at the same time the parent node will deny other nodes from requesting bus access. See Col. 6, lines 39-47; Col. 9, lines 6-10. Child nodes may try to arbitrate to the parent node, but these arbitration requests will not be forwarded by their parent node once a data transmission right has been granted to a root node. See Col. 10, lines 40-42. Therefore, the arbitration state of these child nodes can not be updated to the root node during this time. Even with bus access granted to a child node, this fails to confer nominal root status to that child node making irrelevant to Applicants' claimed method. Hence, Duckwall teaches a discrete arbitration phase, along with a nonanalogous concept of a root node.

Duckwall effectively teaches breaking a system into two subtopologies coupled together by a long link. When node 7 holds the token, its children nodes 4 - 6 may request access to the bus during an arbitration phase. Notably, nodes 0 - 3 are excluded from the arbitration sequence. Then when node 7 confers the right to transmit on the bus to node 6 or node 4, the grant of that right fails to

confer nominal root status. Thus, while Applicants claim nominal root status following the right to transmit on the bus, Duckwall fails to provide such a teaching. In a token passing between node 7 and 3 does not change this result. Rather, it is still necessary to arbitrate among nodes 0 - 3 before any transmission may occur. Thus, the token only confers the right to perform local arbitration and even within the local subtopology the root status does not follow the right to transmit on the bus. Applicant respectfully requests this rejection based on Duckwall be withdrawn.

The Examiner has rejected claim 2 under 35 U.S.C. §102(b) as being anticipated by Duckwall.

Independent claim 2 is not anticipated by Duckwall because Duckwall does not disclose an apparatus comprising a first port, and a physical layer (PHY) coupled to the first port that encodes a last packet of a subaction for transmission on a serial bus, the PHY arbitrating a next access to the serial bus and attaching a grant token to the last packet of the subaction to be transmitted out a highest priority port. The predetermined sequencing method taught by Duckwall is nonanalogous to Applicants' claimed highest priority port. Duckwall passes the token in a cyclic fashion, which is wholly conceptually disparate because cyclic token passing constructs a static order for token passing, where a notion of highest priority port is simply absent. Further, the PHY of node 7 does not arbitrate a next access to the serial bus when passing the token to node 3. Rather, node 3 must perform arbitration after receiving the token. Thus, there is no PHY arbitrating a next access to the serial bus. The grant token is not attached to the last packet of a subaction. See Col. 10, 14-36. In short, the purported teachings in Duckwall are simply irrelevant to what Applicant claims. Applicant respectfully requests this rejection based on Duckwall be withdrawn.

For at least the reasons stated with respect to claims 1 and 2, Applicants request that the rejections to these claims be withdrawn.

C. Claims Rejected Under 35 U.S.C. §103(a)

The Examiner rejected claim 3 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,784,648 Duckwall (Duckwall) in view of U.S. Patent No. 5,394,556 Oprescu (Oprescu). Applicants respectfully traverse this rejection.

Independent claim 3 is not unpatentable over Duckwall in view of Oprescu because the combination of these patents does not disclose a system comprising a full duplex serial bus, and a plurality of nodes coupled together in a tree topology by the serial bus wherein a node transmitting a current packet is a nominal root node of the tree topology and wherein each other node repeatedly transmits current arbitration information toward the nominal root node. Duckwall does not teach the concept of a nominal root node nor does it teach wherein each other node repeatedly transmits current arbitration information toward the nominal root node. As previously argued, Duckwall grants bus access to the root node, but the root node may transfer this right down to a child node. However, during this time other child nodes are precluded from arbitrating to the parent node, thus foreclosing the ability to repeatedly transmit current arbitration information. Thus, the teaching in Duckwall is conceptually disparate from Applicants' claimed nominal root node. Applicants note that the Examiner's only reliance on Oprescu is apparently for the notion of a full duplex bus. Thus, Duckwall in combination with Oprescu fails to teach or suggest all elements of Applicants' claim. In view of the foregoing, it is respectfully requested that the rejection to claim 3 be withdrawn.

The Examiner has pointed to no reference teaching or suggesting a tree topology wherein repeated transmission of current arbitration information towards the nominal root node as claimed. Absent such teaching or suggestion of this feature of Applicants' claim, the Examiner has failed to satisfy the obligation to make out a *prima facie* case of obviousness as required by the rules of patent examination. In view of this failing of the combination of references, Applicants respectfully submit that the rejection of Claim 3 be withdrawn.

For at least the reasons stated with respect to claim 3, Applicants request that the rejection to this claim be withdrawn.

CONCLUSION

In of the foregoing, it is believed that all claims now pending, namely claims 1-3, patentably define the subject invention over the prior art of record, and are in condition for allowance and such action is earnestly solicited at the earliest possible date. If the Examiner believes that a telephone conference would be useful in moving the application forward to allowance, the Examiner is encouraged to contact the undersigned at (310) 207-3800.

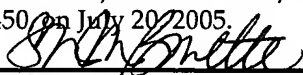
Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN, LLP

Dated: July 20, 2005



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<p>12400 Wilshire Boulevard Seventh Floor Los Angeles, California 90025 (310) 207-3800</p>	<p>CERTIFICATE OF MAILING: I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on July 20, 2005.  Susan M. Barrette July 20, 2005</p>
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